

Subpart B—Pre-Installation Considerations

§ 3285.101 Fire separation.

Fire separation distances must be in accordance with the requirements of Chapter 6 of NFPA 501A, 2003 edition (incorporated by reference, see § 3285.4) or the requirements of the LAHJ. The installation instructions must clearly indicate this requirement in a separate section and must caution installers to take into account any local requirements on fire separation.

§ 3285.102 Installation of manufactured homes in flood hazard areas.

(a) *Definitions.* Except to the extent otherwise defined in Subpart A, the terms used in this subpart are as defined in 44 CFR 59.1 of the National Flood Insurance Program (NFIP) regulations.

(b) *Applicability.* The provisions of this section apply to the initial installation of new manufactured homes located wholly or partly within a flood hazard area.

(c) *Pre-installation considerations.* Prior to the initial installation of a new manufactured home, the installer is responsible for determining whether the manufactured home site lies wholly or partly within a special flood hazard area as shown on the LAHJ's Flood Insurance Rate Map, Flood Boundary and Floodway Map, or Flood Hazard Boundary Map, or if no LAHJ, in accordance with NFIP regulations. If so located, and before an installation method is agreed upon, the map and supporting studies adopted by the LAHJ must be used to determine the flood hazard zone and base flood elevation at the site.

(d) *General elevation and foundation requirements—(1) Methods and practices.* Manufactured homes located wholly or partly within special flood hazard areas must be installed on foundations engineered to incorporate methods and practices that minimize flood damage during the base flood, in accordance with the requirements of the LAHJ, 44 CFR 60.3(a) through (e), and other provisions of 44 CFR referenced by those paragraphs.

(2) *Outside appliances.* (i) Appliances installed on the manufactured home

site in flood hazard areas must be anchored and elevated to or above the same elevation as the lowest elevation of the lowest floor of the home.

(ii) Appliance air inlets and exhausts in flood hazard areas must be located at or above the same elevation as the lowest elevation of the lowest floor of the home.

(3) *Related guidance.* Refer to FEMA 85/September 1985, *Manufactured Home Installation in Flood Hazard Areas*, 1985 (incorporated by reference, see § 3285.4).

§ 3285.103 Site suitability with design zone maps.

Prior to the initial installation of a new manufactured home and as part of making the certification of the installation required under part 3286, upon effect, the installer is to verify that the design and construction of the manufactured home, as indicated on the design zone maps provided with the home, are suitable for the site location where the home is to be installed. The design zone maps are those identified in part 3280 of this chapter.

(a) *Wind zone.* Manufactured homes must not be installed in a wind zone that exceeds the design wind loads for which the home has been designed, as evidenced by the wind zone indicated on the home's data plate and as further defined by counties or local governments within affected states, as applicable, in § 3280.305(c)(2) of the Manufactured Home Construction and Safety Standards in this chapter.

(b) *Roof load zone.* Manufactured homes must not be located in a roof load zone that exceeds the design roof load for which the home has been designed, as evidenced by the roof load zone indicated on the home's data plate and as further defined by counties or local governments within affected states, as applicable, in § 3280.305(c)(3) of the Manufactured Home Construction and Safety Standards in this chapter. Refer to § 3285.315 for Special Snow Load Conditions.

(c) *Thermal zone.* Manufactured homes must not be installed in a thermal zone that exceeds the thermal zone for which the home has been designed, as evidenced by the thermal zone indicated on the heating/cooling certificate

and insulation zone map and as further defined by counties or local governments within affected states, as applicable, in § 3280.504(b)(5) of the Manufactured Home Construction and Safety Standards in this chapter. The manufacturer may provide the heating/cooling information and insulation zone map on the home's data plate.

§ 3285.104 Moving manufactured home to location.

Refer to § 3285.902 for considerations related to moving the manufactured home to the site of installation.

§ 3285.105 Permits, other alterations, and on-site structures.

Refer to § 3285.903 for considerations related to permitting, other alterations, and on-site structures.

Subpart C—Site Preparation

§ 3285.201 Soil conditions.

To help prevent settling or sagging, the foundation must be constructed on firm, undisturbed soil or fill compacted to at least 90 percent of its maximum relative density. All organic material such as grass, roots, twigs, and wood scraps must be removed in areas where footings are to be placed. After removal of organic material, the home site must be graded or otherwise prepared to ensure adequate drainage, in accordance with § 3285.203.

§ 3285.202 Soil classifications and bearing capacity.

The soil classification and bearing capacity of the soil must be determined before the foundation is constructed and anchored. The soil classification and bearing capacity must be determined by one or more of the following methods, unless the soil bearing capacity is established as permitted in paragraph (f) of this section:

(a) *Soil tests.* Soil tests that are in accordance with generally accepted engineering practice; or

(b) *Soil records.* Soil records of the applicable LAHJ; or

(c) *Soil classifications and bearing capacities.* If the soil class or bearing capacity cannot be determined by test or soil records, but its type can be identified, the soil classification, allowable pressures, and torque values shown in Table to § 3285.202 may be used.

(d) A pocket penetrometer; or

(e) In lieu of determining the soil bearing capacity by use of the methods shown in the table, an allowable pressure of 1,500 psf may be used, unless the site-specific information requires the use of lower values based on soil classification and type.

(f) If the soil appears to be composed of peat, organic clays, or uncompacted fill, or appears to have unusual conditions, a registered professional geologist, registered professional engineer, or registered architect must determine the soil classification and maximum allowable soil bearing capacity.

TABLE TO § 3285.202

Soil classification		Soil description	Allowable soil bearing pressure (psf) ¹	Blow count ASTM D 1586–99	Torque probe ³ value ⁴ (inch-pounds)-
Classification number	ASTM D 2487–00 or D 2488–00 (incorporated by reference, see § 3285.4)				
1	Rock or hard pan	4000+		
2	GW, GP, SW, SP, GM, SM	Sandy gravel and gravel; very than dense and/or cemented sands; coarse gravel/cobbles; preloaded silts, clays and coral.	2000	40+	More than 550.
3	GC, SC, ML, CL	Sand; silty sand; clayey sand; silty gravel; medium dense coarse sands; sandy gravel; and very stiff silt, sand clays.	1500	24–39	351–550.
4A	CG, MH ²	Loose to medium dense sands; firm to stiff clays and silts; alluvial fills.	1000	18–23	276–350.
4B	CH, MH ²	Loose sands; firm clays; alluvial fills	1000	12–17	175–275.
5	OL, OH, PT	Uncompacted fill; peat; organic clays	Refer to 3285.202(e).	0–11	Less than 175.

Notes: